



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,247	06/19/2006	Matthias Baca	2003PO3602WOUS	2438
7590 12/15/2008				
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			EXAMINER NATALINI, JEFF WILLIAM	
			ART UNIT 2831	PAPER NUMBER
			MAIL DATE 12/15/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,247

Applicant(s)

BACA ET AL.

Examiner

JEFF NATALINI

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 16-21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 16-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/8/08 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 14, 16-21, and 23-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In regard to claims 14, 21, and 26, the claim limitation "cause a thermal response indicative of at least one hot spot in the laminated core" (amended in claims 14 and 21 in the amendment filed 4/4/08 and in claim 26 in the amendment filed 10/8/08) is not given support in the specification. The Examiner did not issue this rejection in the office

action dated 7/9/08 (after the amendment filed 4/4/08) because support in the specification is found for a frequency converter to convert a fundamental frequency to greater than 50 Hz, and the examiner felt that it is known/inherent in the art, that increasing the fundamental frequency to a winding in a generator of a power system would cause the system to be at a higher temperature than normal (thus, causing a thermal response for indicating a hot spot in the laminated core). Applicant in the current response has argued in pages 7 and 8 that "causing a thermal response indicative of at least one hot spot in the laminated core" is the novelty of the invention over the prior art. Because the specification does not describe that the "frequency converter while energizing the field winding 'would cause a thermal response indicative of at least one hot spot in the laminated core'" and the remarks submitted 10/8/08, make it clear that the applicant believes it is not known/inherent in the art for a frequency converter to cause produce this cause, this limitation is considered new matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14, 16-21, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamer ("Acceptance Testing of Electrical Motors and Generators",

cited in the IDS) in view of Sutton (US Publication 2003/0117144) and Smith et al. (5097241).

In regard to claims 14, 18, 21, 25, and 26, Hamer discloses (claims 14, 21, and 26) a method/ apparatus for testing faults in a laminated core of a generator (page 1291-page 1 of the article- "Stator Core Test"), a field winding which lies in parallel with an axis of rotation of the generator (figure 1 test supply VM and winding AM lie in parallel with the rotation of the generator) and is connected to a device that produces alternating current (figure 1 VM; last paragraph of column 1 page 1291), an infrared image detection and record device which is designed to detect infrared radiation for inspecting hot spots in the generator (last paragraph of column 2 page 1 under the heading "Stator Core Test"), wherein a frequency makes available a power in a single phase form (last paragraph of column 1 page 1291; see also equation 1) at an output voltage that can be regulated (see equation 1 and the variable elements that make up the test supply voltage) and discloses that current is applied to the core, which would produce a higher core temperature than when no current is applied (last paragraph of 'Stator Core Test').

Hamer lacks specifically disclosing (claims 14, 21, and 26) wherein the testing device comprises outputting a voltage of at least 400V and a frequency converter for converting the fundamental frequency to a frequency that is greater than 50 Hz to energize the filed winding and cause a thermal response indicative of at least one hot spot in the laminated core and

(claims 18 and 25) wherein the frequency is made available at a frequency above 400 Hz.

Sutton discloses a test for laminated cores wherein a fundamental frequency is increased/converted by a generator (generator would be powered by a fundamental frequency and produces a greater frequency) to a winding of a stator core (page 3-4, paragraphs 42-47), wherein the frequency is produced over 400 Hz (page 3 paragraph 44).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Hamer when testing a stator core to supply a frequency that is higher than the rated operating frequency/fundamental frequency as taught by Sutton in order to be able to detect a severity of faults in the stator core (page 1-2 paragraph 13). In adding the teaching of Sutton to Hamer, and having a value for frequency in equation 1 of Hamer, the voltage applied would be well over 400 volts/turn.

Smith et al. discloses wherein when the frequency through a magnetic core increases, the temperature in the windings increases (col 1 lines 10-25).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Hamer as modified by Sutton that the temperature in the core would increase (thermal response) as taught by Smith et al. because a higher frequency signal (than the operating/fundamental frequency) is being applied, this temperature increase allows for an indication of a hot spot in the core as is monitored in Hamer (last paragraph of 'Stator Core Test').

In regard to claims 16, 17, 23, and 24, Hamer discloses wherein the high speed testing device has an input side which can be connected to a three phase power supply at 400 V (figure 1 at least test supply VM has an input that would be able to be connected to a 400 V three phase power supply).

In regard to claim 19, Hamer discloses wherein the field winding comprises at least two lines (figure 1, VM; connected to ground line and power line).

In regard to claim 20, Hamer discloses wherein the testing device is in the form of a transportable device (the device is connected to the core and is able to be disconnected and transported to a desirable location).

Response to Arguments

6. Applicant's arguments with respect to claims 14, 16-21, and 23-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFF NATALINI whose telephone number is (571)272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Natalini/
Examiner, Art Unit 2831